its stowage container; and its operational arrangement must not interfere with the operation of any other lifesaving appliance at any other launching station.

(5) Where appropriate, the marine evacuation system's stowage area must be protected from damage by heavy seas.

(c) *Stowage of associated liferafts.* Inflatable liferafts used in conjunction with the marine evacuation system must be stowed as follows:

(1) Each inflatable liferaft used in conjunction with the marine evacuation system must be close to the system container, but capable of dropping clear of the deployed chute and boarding platform.

(2) Each inflatable liferaft used in conjunction with the marine evacuation system must be capable of individual release from its stowage rack.

(3) Each inflatable liferaft used in conjunction with the marine evacuation system must be stowed in accordance with §133.130.

(4) Each inflatable liferaft used in conjunction with the marine evacuation system must be provided with preconnected or easily connected retrieving lines to the platform.

§133.150 Survival craft launching and recovery arrangements: General.

(a) All survival craft required for abandonment by the total number of persons on board must be capable of being launched with their full complement of persons and equipment within 10 minutes from the time the abandon-ship signal is given.

(b)(1) Each launching appliance must be a davit approved under 46 CFR part 160, subpart 160.132 for use with the intended craft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with the intended craft.

(2) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus approved under 46 CFR part 160, subpart 160.170 and be either—

(i) A launching appliance described in paragraph (b)(1) of this section; or

(ii) A launching appliance approved on or before November 10, 2011 under approval series 160.163.

(c) Unless expressly provided otherwise, each survival craft must be provided launching appliances or marine evacuation systems, except—

(1) Those survival craft that can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline in the lightest seagoing condition and that have a mass of not more than 185 kilograms (407 pounds);

(2) Those survival craft that can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline in the lightest seagoing condition and that are stowed for launching directly from the stowed position, under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way;

(3) Those survival craft that are carried in excess of the survival craft for 200 percent of the total number of persons on board the OSV, and that have a mass of not more than 185 kilograms (407 pounds);

(4) Those survival craft carried in excess of the survival craft for 200 percent of the total number of persons on board the OSV, and are stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way;

(5) Those survival craft that are provided for use in conjunction with a marine evacuation system, and stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way; or

(6) Liferafts installed on liftboats.

(d) Each launching appliance must be arranged so that the fully equipped survival craft the launching appliance serves can be safely launched against unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way,—

(1) When the survival craft is loaded with its full complement of persons; and

(2) When not more than the required operating crew is on board.

(e) A launching appliance must not depend on any means other than gravity or stored mechanical power, independent of the OSV's power supplies, to launch the survival craft the launching appliance serves, in the fully loaded

and equipped condition, and also in the light condition.

(f) Each launching appliance's structural attachment to the OSV must be designed to be at least 4.5 times—

(1) The load imparted on the attachment by the launching appliance and its fully loaded survival craft under the most adverse combination of list and trim as required under paragraph (b) of this section; and

(2) The ultimate strength of the construction material.

(g) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the OSV's crew are readily accessible and easily maintained;

(2) The launching appliance remains effective under conditions of icing;

(3) The same type of release mechanism is used for each similar survival craft carried on board the OSV;

(4) The preparation and handling of each survival craft at any one launching station does not interfere with the prompt preparation and handling of any other survival craft at any other station;

(5) The persons on board the OSV can safely and rapidly board the survival craft;

(6) Each davit-launched liferaft can be boarded by its full complement of persons within 3 minutes from the time the instruction to board is given: and

(7) During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched is illuminated by lighting supplied from the emergency source of electrical power.

(h) Each launching mechanism must be arranged so it may be actuated by one person, both from a position on the OSV's deck, and from a position within the survival craft. Each launching and recovery arrangement must allow the operator on the deck to observe the survival craft at all times during launching.

(i) Means must be provided outside the machinery space to prevent any discharge of water onto survival craft during abandonment.

[CGD 84–069, 61 FR 25304, May 20, 1996, as amended at 63 FR 52816, Oct. 1, 1998; USCG–2010–0048, 76 FR 62973, Oct. 11, 2011]

§ 133.153 Survival craft launching and recovery arrangements using falls and a winch.

Survival craft launching and recovery arrangements, in addition to meeting the requirements in §133.150, must meet the following requirements:

(a) Each fall wire must be of rotation-resistant and corrosion-resistant steel wire rope.

(b) The breaking strength of each fall wire and each attachment used on the fall must be at least six times the load imparted on the fall by the fully-loaded survival craft.

(c) Each fall must be long enough for the survival craft to reach the water with the OSV in its lightest seagoing condition, under unfavorable conditions of trim and with the OSV listed not less than 20 degrees either way.

(d) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, pay-out wheels, and brake levers.

(e) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap. A multiple drum winch must be arranged so that the falls wind off at the same rate when lowering, and onto the drums at the same rate when hoisting.

(f) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

(g) The lowering speed for a fully loaded survival craft must be not less than that obtained from the following formula:

(1) $S=0.4+(0.02\ H)$, where S is the speed of lowering in meters per second, and H is the height in meters from the davit head to the waterline at the lightest seagoing condition.

(2) $S=79+(1.2\ H)$, where S is the speed of lowering in feet per minute, and H is the height in feet.

(h) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under paragraph (g) of this section.

(i) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).